

ABSTRACT

According to one example of the invention, there is provided a multipass plate pair for conducting a fluid in a heat exchanger. The plate pair includes first and second plates, each plate having at least two longitudinal columns of externally protruding obliquely angled ribs formed therein and separated by a longitudinal flat section extending from substantially a first end of the plate to a terminus spaced apart from a second end of the plate. Each plate includes, between the terminus and the second end, a turn portion joining the two longitudinal columns. The first and second plates are joined together with the longitudinal flat sections abutting each other and the columns of angled ribs cooperating to form undulating first and second internal flow channels there-through separated by the abutting longitudinal flat sections. The first and second internal flow channels each have an upstream area and a downstream area relative to a flow direction of an external fluid flowing over the plate pair. The turn portions of the plates cooperate to define at least a first internal flow path for directing fluid from the upstream area of the first internal flow channel to the downstream area of the second internal flow channel and a second internal flow path for directing fluid from the downstream area of the first internal flow channel to the upstream area of the second internal flow channel.

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